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- C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, M. Limon, S. S. Meyer, L. Page, G. S. Tucker, E. Wollack, & E. L. Wright. 148, 161 (2003)
- See SPERGEL, D. N., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Determination of Cosmological Parameters.
- See Verde, L., et al. First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Parameter Estimation Methodology.
- See Peiris, H. V., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Implications for Inflation.
- See PAGE, L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Interpretation of the TT and TE Angular Power Spectrum Peaks.
- KOMATSU, E. See BENNETT, C. L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Preliminary Maps and Basic Populis.
 - First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Tests of Gaussianity. E. Komatsu, A. Kogut, M. R. Nolta, C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, M. Limon, S. S. Meyer, L. Page, D. N. Spergel, G. S. Tucker, L. Verde, E. Wollack, & E. L. Wright. 148, 119 (2003)
 - See HINSHAW, G., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: The Angular Power Spectrum.
 - See Spergel, D. N., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Determination of Cosmological Parameters.
 - See Peiris, H. V., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Implications for Inflation.
- LANGE, A. E. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- LAWLER, J. E. Improved Laboratory Transition Probabilities for Nd II and Application to the Neodymium Abundances of the Sun and Three Metal-Poor Stars. E. A. Den Hartog, J. E. Lawler, C. Sneden, & J. J. Cowan. 148, 543 (2003)
- LEE, YOUNGUNG. A Neutral Hydrogen Survey of the Large Magellanic Cloud: Aperture Synthesis and Multibeam Data Combined. Sungeun Kim, Lister Stavely-Smith, Michael A. Dopita, Robert J. Sault, Youngung Lee, & You-Hua Chu. 148, 473 (2003)
- LEONG, LAI PENG. See MEDVEDEV, IVAN, et al. The Millimeter- and Submillimeter-Wave Spectrum of the Trans-Trans Conformer of Diethyl Ether (C₂H₃OC₂H₃).
- LIMON, M. See BENNETT, C. L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Preliminary Maps and Basic Results.
 - See JAROSIK, N., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: On-Orbit Radiometer Characterization.
 - See PAGE, L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Beam Profiles and Window Functions.
 - See BARNES, C., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Galactic Signal Contamination from Sidelobe Pickup.
 - See HISSHAW, G., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Data Processing Methods and Systematic Errors Limits.
 - See Bennett, C. L., et al. First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Foreground Emission.
 - See Komatsu, E., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Tests of Gaussianity.
 - See HINSHAW, G., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: The Angular Power Spectrum.
 - (WMAP) Observations: The August Tover Spectrum.

 (WMAP) Observations: Temperature-Polarization Correlation.
 - (WMAP) Observations: Determination of Cosmological Parameters.
 - (WMAP) Observations: Determination of Cosmological Parameters. See VERDE, L., et al. First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Parameter Estimation Methodology.
 - See Peiris, H. V., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Implications for Inflation.
 - See PAGE, L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Interpretation of the TT and TE Angular Power Spectrum Peaks.
- MARTINIS, L. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.

- MASI, S. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- MASON, P. V. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- MAUSKOPF, P. D. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- MCKAY, TIMOTHY A. See BAHCALL, NETA A., et al. A Merged Catalog of Clusters of Galaxies from Early Sloan Digital Sky Survey Data.
- McKinnon, Mark M. Three-dimensional Statistics of Radio Polarimetry. Mark M. McKinnon. 148, 519 (2003)
- MEDVEDEV, IVAN. The Millimeter- and Submillimeter-Wave Spectrum of the Trans-Trans Conformer of Diethyl Ether (C₂H₅OC₂H₅). Ivan Medvedev: Manfred Winnewisser, Frank C. De Lucia, Eric Herbst, Ewa Białkowski—Jaworska, Oleksandr Desyatnyk, Lech Pszczolkowski, Zbigniew Kisiel, Enyi Yi, Lai Peng Leong, & Ryan P. A. Bettens. 148, 593 (2003)
- MEYER, S. S. See BENNETT, C. L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Preliminary Maps and Basic Results.
- See JAROSIK, N., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: On-Orbit Radiometer Characterization.
- See PAGE, L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Beam Profiles and Window Functions.
- See BARNES, C., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Galactic Signal Contamination from Sidelobe Pickup.
- See HINSHAW, G., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Data Processing Methods and Systematic Errors Limits
- See BENNETT, C. L., et al. First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Foreground Emission.
- See KOMATSU, E., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Tests of Gaussianity.
- See HINSHAW, G., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: The Angular Power Spectrum.
- See Kogut, A., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Temperature-Polarization Correlation.
- See Spergel, D. N., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Determination of Cosmological Parameters.
- See Verde, L., et al. First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Parameter Estimation Methodology.
- See PEIRIS, H. V., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Implications for Inflation.
- See PAGE, L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Interpretation of the TT and TE Angular Power Spectrum Peaks.
- MiGLIO, L. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- MILLER, CHRIS. See BAHCALL, NETA A., et al. A Merged Catalog of Clusters of Galaxies from Early Sloan Digital Sky Survey Data.
- MILLER, SCOTT T. Extraplanar Emission-Line Gas in Edge-On Spiral Galaxies.
 I. Deep Emission-Line Imaging. Scott T. Miller & Sylvain Veilleux. 148, 383 (2003)
- MONTROY, T. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- NAHAR, S. Measurements and Calculations of Photoionization Cross Sections of Multiply Charged Ions in Ground and Metastable States along the Isonuclear Series of Oxygen: O²⁺ to O⁴⁺. J.-P. Champeaux, J.-M. Bizau, D. Cubaynes, C. Blancard, S. Nahar, D. Hitz, J. Bruneau, & F. J. Wulleumier. 148, 583 (2003)
- NETTERFIELD, C. B. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- NICHOL, R. C. See BAHCALL, NETA A., et al. A Merged Catalog of Clusters of Galaxies from Early Sloan Digital Sky Survey Data.
- NOEL-STORR, JACOB. Space Telescope Imaging Spectrograph Spectroscopy of the Emission-Line Gas in the Nuclei of Nearby FR-I Galaxies. *Jacob*

- Noel-Storr, Stefi A. Baum, Gijs Verdoes Kleijn, Roeland P. van der Marel, Christoper P. O'Dea, Tim de Zeeuw, & C. Marcella Carollo. 148, 419 (2003)
- NOLTA, M. R. See BENNETT, C. L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Preliminary Maps and Basic Results
 - See Bennett, C. L., et al. First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Foreground Emission.
 - See Komatsu, E., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Tests of Gaussianity.
 - See Spergel., D. N., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Determination of Cosmological Parameters.
 - See Verde, L., et al. First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Parameter Estimation Methodology.
 - See PAGE, L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Interpretation of the TT and TE Angular Power Spectrum Peaks.
- O'DEA, CHRISTOPER P. Space Telescope Imaging Spectrograph Spectroscopy of the Emission-Line Gas in the Nuclei of Nearby FR-I Galaxies. Jacob Noel-Storr, Stefi A. Baum, Gijs Verdoes Kleijn, Roeland P. van der Marel, Christoper P. O'Dea, Tim de Zeeuw, & C. Marcella Carollo. 148, 419 (2003)
- ODEGARD, N. See BENNETT, C. L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Preliminary Maps and Basic Results.
 - See HINSHAW, G., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Data Processing Methods and Systematic Errors Limits.
 - See Bennett, C. L., et al. First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Foreground Emission.
- OHTA, KOUII. Optical Identification of the ASCA Medium Sensitivity Survey in the Northern Sky: Nature of Hard X-Ray-Selected Luminous Active Galactic Nuclei. Masayuki Akiyama, Yoshihiro Ueda, Kouji Ohta, Tadayuki Takahashi, & Toru Yamada. 148, 275 (2003)
- PAGE, L. See BENNETT, C. L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Preliminary Maps and Basic Results.
 - See JAROSIK, N., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: On-Orbit Radiometer Characterization.
 - First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Beam Profiles and Window Functions. L. Page, C. Barnes, G. Hinshaw, D. N. Spergel, J. L. Weiland, E. Wollack, C. L. Bennett, M. Halpern, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, G. S. Tucker, & E. L. Wright. 148, 39 (2003)
 - See Barnes, C., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Galactic Signal Contamination from Sidelobe Pickup.
 - See HINSHAW, G., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Data Processing Methods and Systematic Errors Limits.
 - See BENNETT, C. L., et al. First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Foreground Emission.
 - See KOMATSU, E., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Tests of Gaussianity.
 - See HINSHAW, G., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: The Angular Power Spectrum.
 - See Kogut, A., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Temperature-Polarization Correlation.
 - See Spergel, D. N., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Determination of Cosmological Parameters.
 - See VERDE, L., et al. First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Parameter Estimation Methodology.
 - (WMAP) Observations: Parameter Estimation Methodology.

 See Peiris, H. V., et al. First-Year Wilkinson Microwave Anisotropy Probe
 - (WMAP) Observations: Implications for Inflation.

 First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Interpretation of the TT and TE Angular Power Spectrum Peaks. L. Page, M. R. Nolta, C. Barnes, C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, H. V. Peiris, D. N. Spergel, G. S. Tucker, E. Wollack, & E. L. Wright. 148, 233 (2003)
- PAICENTINI, F. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.

- PAINE, C. G. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- PASCALE, E. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- PEIRIS, H. V. See BENNETT, C. L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Preliminary Maps and Basic Results.
 - See Spergel, D. N., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Determination of Cosmological Parameters.
 - See VERDE, L., et al. First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Parameter Estimation Methodology.
 - First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Implications for Inflation. H. V. Peiris, E. Komatsu, L. Verde, D. N. Spergel, C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, L. Page, G. S. Tucker, E. Wollack, & E. L. Wright. 148, 213 (2003)
 - See PAGE, L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Interpretation of the TT and TE Angular Power Spectrum Peaks.
- POLENTA, G. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- PONGETTI, F. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- POSTMAN, MARC. See BAHCALL, NETA A., et al. A Merged Catalog of Clusters of Galaxies from Early Sloan Digital Sky Survey Data.
- PROCHASKA, JASON X. New Damped Lyα Metallicities from ESI Spectroscopy of Five Palomar Sky Survey Quasars. Jason X. Prochaska, Sandra Castro, & S. G. Djorgovski. 148, 317 (2003)
- PSZCZOLKOWSKI, LECH. See MEDVEDEV, IVAN, et al. The Millimeter- and Submillimeter-Wave Spectrum of the Trans-Trans Conformer of Diethyl Ether (C₂H₅OC₂H₅).
- RADOVICH, M. Analysis of the Interaction Effects in the Southern Galaxy Pair Tol 1238–364 and ESO 381-G009. S. Temporin, S. Ciroi, P. Rafanelli, M. Radovich, J. Vennik, G. M. Richter, & K. Birkle. 148, 353 (2003)
- RAFANELLI, P. Analysis of the Interaction Effects in the Southern Galaxy Pair Tol 1238–364 and ESO 381-G009. S. Temporin, S. Ciroi, P. Rafanelli, M. Radovich, J. Vennik, G. M. Richter, & K. Birkle. 148, 353 (2003)
- RICHTER, G. M. Analysis of the Interaction Effects in the Southern Galaxy Pair Tol 1238–364 and ESO 381-G009. S. Temporin, S. Ciroi, P. Rafanelli, M. Radovich, J. Vennik, G. M. Richter, & K. Birkle. 148, 353 (2003)
- ROMEO, G. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- RUHL, J. E. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- SAULT, ROBERT J. A Neutral Hydrogen Survey of the Large Magellanic Cloud: Aperture Synthesis and Multibeam Data Combined. Sungeun Kim, Lister Stavely-Smith. Michael A. Dopita, Robert J. Sault, Youngung Lee, & You-Hua Chu. 148, 473 (2003)
- SCARAMUZZI, F. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- SCHMITT, H. R. A *Hubble Space Telescope* Survey of Extended [O III λ 5007 Emission in a Far-Infrared Selected Sample of Seyfert Galaxies: Observations. *H. R. Schmitt, J. L. Donley, R. R. J. Antonucci, J. B. Hutchings, & A. L. Kinney.* 148, 327 (2003)
- SCHNEIDER, DON. See BAHCALL, NETA A., et al. A Merged Catalog of Clusters of Galaxies from Early Sloan Digital Sky Survey Data.
- SCHROEDER, JOSH. See BAHCALL, NETA A., et al. A Merged Catalog of Clusters of Galaxies from Early Sloan Digital Sky Survey Data.
- SFORNA, D. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- SKORY, S. New Theoretical Line List for the $B'^{2}\Sigma^{+} \leftarrow X^{2}\Sigma^{+}$ System of 24 MgH. S. Skory, P. F. Weck, P. C. Stancil, & K. Kirby. 148, 599 (2003)
- SNEDEN, C. Improved Laboratory Transition Probabilities for Nd II and Application to the Neodymium Abundances of the Sun and Three

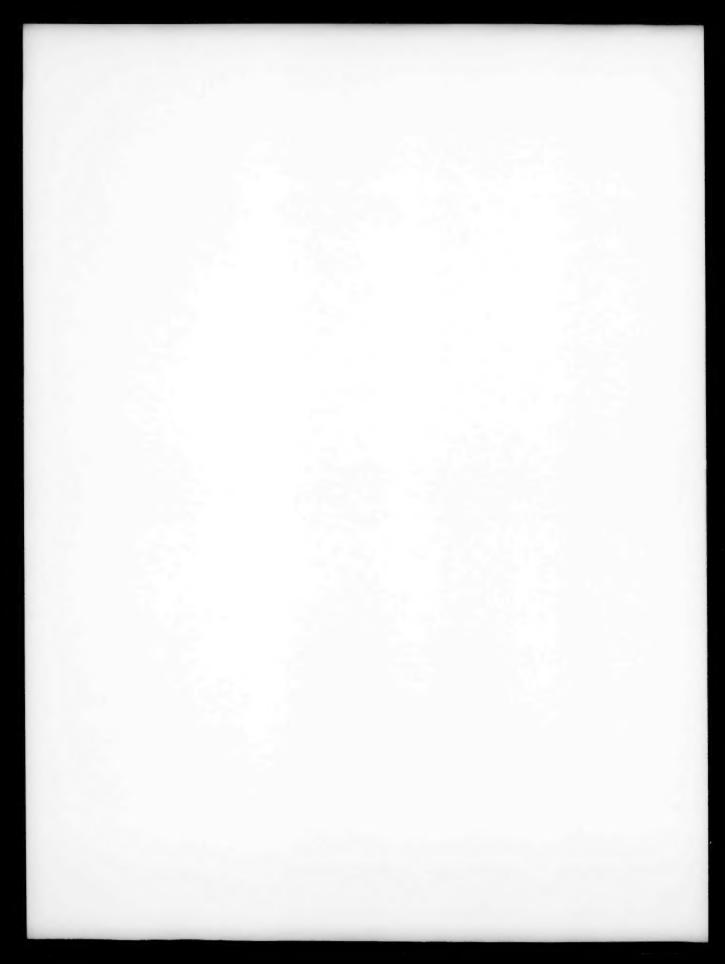
- Metal-Poor Stars. E. A. Den Hartog, J. E. Lawler, C. Sneden, & J. J. Cowan. 148, 543 (2003)
- SPERGEL, D. N. See BENNETT, C. L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Preliminary Maps and Basic Results.
 - See JAROSIK, N., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: On-Orbit Radiometer Characterization.
 - See PAGE, L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Beam Profiles and Window Functions.
 - See HINSHAW, G., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Data Processing Methods and Systematic Errors Limits.
 - See Bennett, C. L., et al. First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Foreground Emission.
 - See KOMATSU, E., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Tests of Gaussianity.
 - See HINSHAW, G., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: The Angular Power Spectrum.
 - See Kogut, A., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Temperature-Polarization Correlation.
 - First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Determination of Cosmological Parameters. D. N. Spergel, L. Verde, H. V. Peiris, E. Komatsu, M. R. Nolta, C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, L. Page, G. S. Tucker, J. L. Weiland, E. Wollack, & E. L. Wright. 148, 175 (2003)
 - See VERDE, L., et al. First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Parameter Estimation Methodology.
 - See Peirus, H. V., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Implications for Inflation.
 - See Page, L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Interpretation of the TT and TE Angular Power Spectrum Peaks.
- STANCII, P. C. New Theoretical Line List for the B' ²\(\Sigma^{\psi} \in X^{2}\Sigma^{\psi}\) System of ²⁴MgH. S. Skory, P. F. Weck, P. C. Stancil, & K. Kirby. 148, 599 (2003)
- STAVELY-SMITH, LISTER. A Neutral Hydrogen Survey of the Large Magellanic Cloud: Aperture Synthesis and Multibeam Data Combined. Sungeun Kim, Lister Stavely-Smith, Michael A. Dopita, Robert J. Sault, Youngung Lee. & You-Hua Chu. 148, 473 (2003)
- TAKAHASHI, TADAYUKI. Optical Identification of the ASCA Medium Sensitivity Survey in the Northern Sky: Nature of Hard X-Ray-Selected Luminous Active Galactic Nuclei. Masayuki Akiyama, Yoshihiro Ueda, Konji Ohta, Tadayuki Takahashi. & Toru Yamada. 148, 275 (2003)
- TAYAL, S. S. Electron Collision Excitation Rates for O I Using the B-Spline R-Matrix Approach. O. Zatsarinny & S. S. Tayal. 148, 575 (2003)
- TEMPORIN, S. Analysis of the Interaction Effects in the Southern Galaxy Pair Tol 1238–364 and ESO 381-G009. S. Temporin, S. Ciroi, P. Rafanelli, M. Radovich, J. Vennik, G. M. Richter, & K. Birkle. 148, 353 (2003)
- TUCKER, G. S. See BENNETT, C. L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Preliminary Maps and Basic Results.
 - See JAROSIK, N., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: On-Orbit Radiometer Characterization.
 - See PAGE, L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Beam Profiles and Window Functions.
 - See Barnes, C., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Galactic Signal Contamination from Sidelobe Pickup.
 - See HINSHAW, G., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Data Processing Methods and Systematic Errors Limits
 - See Bennett, C. L., et al. First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Foreground Emission.
 - See Komatsu, E., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Tests of Gaussianity.
 - See HINSHAW, G., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: The Angular Power Spectrum.
 - See Kogut, A., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Temperature-Polarization Correlation.
 - See Spergel, D. N., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Determination of Cosmological Parameters.
 - See VERDE, L., et al. First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Parameter Estimation Methodology.

- See Peiris, H. V., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Implications for Inflation.
- See Page, L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Interpretation of the TT and TE Angular Power Spectrum Peaks.
- TURNER, A. D. See CRILL, B. P., et al. BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background.
- UEDA, YOSHIHIRO. Optical Identification of the ASCA Medium Sensitivity Survey in the Northern Sky: Nature of Hard X-Ray-Selected Luminous Active Galactic Nuclei. Masayuki Akiyama, Yoshihiro Ueda. Kouji Ohta, Tadayuki Takahashi, & Toru Yamada. 148, 275 (2003)
- VAN DER MAREL, ROELAND P. Space Telescope Imaging Spectrograph Spectroscopy of the Emission-Line Gas in the Nuclei of Nearby FR-I Galaxies. Jacob Noel-Storr, Stefi A. Baum, Gijs Verdoes Kleijn, Roeland P. van der Marel, Christoper P. O'Dea, Tim de Zeeuw, & C. Marcella Carollo, 148, 419 (2003)
- VEILLEUX, SYLVAIN. Extraplanar Emission-Line Gas in Edge-On Spiral Galaxies. I. Deep Emission-Line Imaging. Scott T. Miller & Sylvain Veilleux. 148, 383 (2003)
- VENNIK, J. Analysis of the Interaction Effects in the Southern Galaxy Pair Tol 1238–364 and ESO 381-G009. S. Temporin, S. Ciroi, P. Rafanelli, M. Radovich, J. Vennik, G. M. Richter, & K. Birkle. 148, 353 (2003)
- VERDE, L. See BENNETT, C. L., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Preliminary Maps and Basic Results.
 - See Komatsu, E., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Tests of Gaussianity.
 - See HINSHAW, G., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: The Angular Power Spectrum.
 - See Spergel., D. N., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Determination of Cosmological Parameters.
- First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Parameter Estimation Methodology. L. Verde, H. V. Peiris, D. N. Spergel, M. R. Nolta, C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, L. Page, G. S. Tucker, E. Wollack, & E. L. Wright. 148, 195 (2003)
- See Peiris, H. V., et al. First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Implications for Inflation.
- VERDOES KLEIN, GIS. Space Telescope Imaging Spectrograph Spectroscopy of the Emission-Line Gas in the Nuclei of Nearby FR-I Galaxies. Jacob Noel-Storr, Stefi A. Baum, Gijs Verdoes Kleijn, Roeland P. van der Marel, Christoper P. O'Dea, Tim de Zeeuw, & C. Marcella Carollo. 148, 419 (2003)
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- First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Implications for Inflation. H. V. Peiris, E. Komatsu, L. Verde, D. N. Spergel, C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, L. Page, G. S. Tucker, E. Wollack, & E. L. Wright. 148, 213 (2003)
- First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Interpretation of the TT and TE Angular Power Spectrum Peaks. L. Page. M. R. Nolta, C. Barnes, C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, H. V. Peiris, D. N. Spergel, G. S. Tucker, E. Wollack, & E. L. Wright. 148, 233 (2003)
- A Merged Catalog of Clusters of Galaxies from Early Sloan Digital Sky Survey Data. Neta A. Bahcall, Timothy A. McKay, James Annis, Rita S. J. Kim, Feng Dong, Sarah Hansen, Tomo Goto, James E. Gum, Chris Miller, R. C. Nichol, Marc Postman, Don Schneider, Josh Schroeder, Wolfgang Voges, Jon Brinkmann, & Masataka Fukugita. 148, 243 (2003)

COSMOLOGY: THEORY

A Merged Catalog of Clusters of Galaxies from Early Sloan Digital Sky Survey Data. Neta A. Bahcall, Timothy A. McKay, James Annis, Rita S. J. Kim, Feng Dong, Sarah Hansen, Tomo Goto, James E. Gunn, Chris Miller, R. C. Nichol, Marc Postman, Don Schneider, Josh Schroeder, Wolfgang Voges, Jon Brinkmann, & Masataka Fukugita. 148, 243 (2003)

EARLY UNIVERSE

- First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Tests of Gaussianity. E. Komatsu, A. Kogut, M. R. Nolta, C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, M. Limon, S. S. Meyer, L. Page, D. N. Spergel, G. S. Tucker, L. Verde, E. Wollack, & E. L. Wright. 148, 119 (2003)
- First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: The Angular Power Spectrum. G. Hinshaw, D. N. Spergel, L. Verde, R. S. Hill, S. S. Meyer, C. Barnes, C. L. Bennett, M. Halpern, N. Jarosik, A. Kogut, E. Komatsu, M. Limon, L. Page, G. S. Tucker, J. L. Weiland, E. Wollack, & E. L. Wright. 148, 135 (2003)
- First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Determination of Cosmological Parameters. D. N. Spergel, L. Verde, H. V. Peiris, E. Komatsu, M. R. Nolta, C. L. Bennett, M. Halpern, G. Hinshaw,

N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, L. Page, G. S. Tucker, J. L. Weiland, E. Wollack, & E. L. Wright. 148, 175 (2003)

First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Implications for Inflation. H. V. Peiris, E. Komatsu, L. Verde, D. N. Spergel, C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, L. Page, G. S. Tucker, E. Wollack, & E. L. Wright. 148, 213 (2003)

GALAXIES: ABUNDANCES

New Damped Ly\(\alpha\) Metallicities from ESI Spectroscopy of Five Palomar Sky Survey Quasars. Jason X. Prochaska, Sandra Castro, & S. G. Djorgovski. 148, 317 (2003)

GALAXIES: ACTIVE

- Optical Identification of the ASCA Medium Sensitivity Survey in the Northern Sky: Nature of Hard X-Ray-Selected Luminous Active Galactic Nuclei. Masayuki Akiyama, Yoshihiro Ueda, Kouji Ohta, Tadayuki Takahashi, & Toru Yamada. 148, 275 (2003)
- A Hubble Space Telescope Survey of Extended [O III λ5007 Emission in a Far-Infrared Selected Sample of Seyfert Galaxies: Observations. H. R. Schmitt, J. L. Donley, R. R. J. Antonucci, J. B. Hutchings, & A. L. Kinney. 148, 327 (2003)
- Space Telescope Imaging Spectrograph Spectroscopy of the Emission-Line Gas in the Nuclei of Nearby FR-1 Galaxies. Jacob Noel-Storr, Steft A. Baum. Gijs Verdoes Kleijn. Roeland P. van der Marel, Christoper P. O'Dea, Tim de Zeeuw, & C. Marcella Carollo. 148, 419 (2003)

GALAXIES: CLUSTERS: GENERAL

- First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Tests of Gaussianity. E. Komatsu, A. Kogut, M. R. Nolta, C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, M. Limon, S. S. Meyer, L. Page, D. N. Spergel, G. S. Tucker, L. Verde, E. Wollack, & E. L. Wright. 148, 119 (2003)
- A Merged Catalog of Clusters of Galaxies from Early Sloan Digital Sky Survey Data. Neta A. Bahcall, Timothy A. McKay, James Annis, Rita S. J. Kim, Feng Dong, Sarah Hansen, Tomo Goto, James E. Gunn, Chris Miller, R. C. Nichol, Marc Postman, Don Schneider, Josh Schroeder, Wolfgang Voges, Jon Brinkmann, & Masataka Fukugita. 148, 243 (2003)

GALAXIES: ELLIPTICAL AND LENTICULAR, CD

Space Telescope Imaging Spectrograph Spectroscopy of the Emission-Line Gas in the Nuclei of Nearby FR-I Galaxies. Jacob Noel-Storr, Stefi A. Baum, Gijs Verdoes Kleijn, Roeland P. van der Marel, Christoper P. O'Dea, Tim de Zeeuw, & C. Marcella Carollo. 148, 419 (2003)

GALAXIES: HALOS

Extraplanar Emission-Line Gas in Edge-On Spiral Galaxies. I. Deep Emission-Line Imaging. Scott T. Miller & Sylvain Veilleux. 148, 383 (2003)

GALAXIES: HIGH-REDSHIFT

New Damped Lyα Metallicities from ESI Spectroscopy of Five Palomar Sky Survey Quasars. Jason X. Prochaska, Sandra Castro, & S. G. Djorgovski. 148, 317 (2003)

GALAXIES: INDIVIDUAL

Name: Tol 1238-364

Analysis of the Interaction Effects in the Southern Galaxy Pair Tol 1238–364 and ESO 381-G009. S. Temporin, S. Ciroi, P. Rafanelli, M. Radovich, J. Vennik, G. M. Richter, & K. Birkle. 148, 353 (2003)

Alphanumeric: ESO 381-G009

Analysis of the Interaction Effects in the Southern Galaxy Pair Tol 1238–364 and ESO 381-G009. S. Temporin, S. Ciroi, P. Rafanelli, M. Radovich, J. Vennik, G. M. Richter, & K. Birkle. 148, 353 (2003)

GALAXIES: INTERACTIONS

Analysis of the Interaction Effects in the Southern Galaxy Pair Tol 1238–364 and ESO 381-G009. S. Temporin, S. Ciroi, P. Rafanelli, M. Radovich, J. Vennik, G. M. Richter, & K. Birkle. 148, 353 (2003)

GALAXIES: ISM

- Extraplanar Emission-Line Gas in Edge-On Spiral Galaxies. I. Deep Emission-Line Imaging. Scott T. Miller & Sylvain Veilleux. 148, 383 (2003)
- A Neutral Hydrogen Survey of the Large Magellanic Cloud: Aperture Synthesis and Multibeam Data Combined. Sungeun Kim, Lister Stavely-Smith, Michael A. Dopita, Robert J. Sault, Youngung Lee, & You-Hua Chu. 148, 473 (2003)

GALAXIES: KINEMATICS AND DYNAMICS

Space Telescope Imaging Spectrograph Spectroscopy of the Emission-Line Gas in the Nuclei of Nearby FR-I Galaxies. Jacob Noel-Storr, Steft A. Baum, Gijs Verdoes Kleijn, Roeland P. van der Marel, Christoper P. O'Dea, Tim de Zeeuw, & C. Marcella Carollo. 148, 419 (2003)

GALAXIES: MAGELLANIC CLOUDS

A Neutral Hydrogen Survey of the Large Magellanic Cloud: Aperture Synthesis and Multibeam Data Combined. Sungeun Kim, Lister Stavely-Smith, Michael A. Dopita, Robert J. Sault, Youngung Lee, & You-Hua Chu. 148, 473 (2003)

GALAXIES: NUCLEI

- A Hubble Space Telescope Survey of Extended [O III λ5007 Emission in a Far-Infrared Selected Sample of Seyfert Galaxies: Observations. H. R. Schmitt, J. L. Donley, R. R. J. Antonucci, J. B. Hutchings, & A. L. Kinney. 148, 327 (2003)
- Space Telescope Imaging Spectrograph Spectroscopy of the Emission-Line Gas in the Nuclei of Nearby FR-I Galaxies. Jacob Noel-Storr, Stefi A. Baum, Gijs Verdoes Kleijn, Roeland P. van der Marel, Christoper P. O'Dea, Tim de Zeeuw, & C. Marcella Carollo. 148, 419 (2003)

GALAXIES: QUASARS: ABSORPTION LINES

New Damped Lyα Metallicities from ESI Spectroscopy of Five Palomar Sky Survey Quasars. Jason X. Prochaska, Sandra Castro, & S. G. Djorgovski. 148, 317 (2003)

GALAXIES: QUASARS: GENERAL

Optical Identification of the ASCA Medium Sensitivity Survey in the Northern Sky: Nature of Hard X-Ray-Selected Luminous Active Galactic Nuclei. Masayuki Akiyama, Yoshihiro Ueda, Kouji Ohta, Tadayuki Takahashi, & Toru Yamada. 148, 275 (2003)

GALAXIES: SEYFERT

- A Hubble Space Telescope Survey of Extended [O III λ5007 Emission in a Far-Infrared Selected Sample of Seyfert Galaxies: Observations. H. R. Schmitt, J. L. Donley, R. R. J. Antonucci, J. B. Hutchings, & A. L. Kinney. 148, 327 (2003)
- Analysis of the Interaction Effects in the Southern Galaxy Pair Tol 1238–364 and ESO 381-G009. S. Temporin, S. Ciroi, P. Rafanelli, M. Radovich, J. Vennik, G. M. Richter, & K. Birkle. 148, 353 (2003)

GALAXIES: SPIRAL

Extraplanar Emission-Line Gas in Edge-On Spiral Galaxies. 1. Deep Emission-Line Imaging. Scott T. Miller & Sylvain Veilleux. 148, 383 (2003)

GALAXIES: STARBURST

Analysis of the Interaction Effects in the Southern Galaxy Pair Tol 1238–364 and ESO 381-G009. S. Temporin, S. Ciroi, P. Rafanelli, M. Radovich, J. Vennik, G. M. Richter, & K. Birkle. 148, 353 (2003)

GALAXIES: STRUCTURE

- A Hubble Space Telescope Survey of Extended [O III λ5007 Emission in a Far-Infrared Selected Sample of Seyfert Galaxies: Observations. H. R. Schmitt, J. L. Donley, R. R. J. Antonucci, J. B. Hutchings, & A. L. Kinney. 148, 327 (2003)
- Extraplanar Emission-Line Gas in Edge-On Spiral Galaxies. I. Deep Emission-Line Imaging. Scott T. Miller & Sylvain Veilleux. 148, 383 (2003)

GALAXY: HALO

First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Foreground Emission. C. L. Bennett, R. S. Hill, G. Hinshaw, M. R. Nolta, N. Odegard, L. Page, D. N. Spergel, J. L. Weiland, E. L. Wright, M. Halpern, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, G. S. Tucker, & E. Wollack. 148, 97 (2003)

GALAXY: OPEN CLUSTERS AND ASSOCIATIONS: INDIVID-UAL

Name: Pleiades

Interstellar Matter near the Pleiades. VI. Evidence for an Interstellar Three-Body Encounter. Richard E. White. 148, 487 (2003)

GALAXY: STRUCTURE

First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Galactic Signal Contamination from Sidelobe Pickup. C. Barnes, R. S. Hill, G. Hinshaw, L. Page, C. L. Bennett, M. Halpern, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, G. S. Tucker, E. Wollack, & E. L. Wright. 148, 51 (2003) First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Foreground Emission. C. L. Bennett, R. S. Hill, G. Hinshaw, M. R. Nolta, N. Odegard, L. Page, D. N. Spergel, J. L. Weiland, E. L. Wright, M. Halpern, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, G. S. Tucker, & E. Wolfack. 148, 97 (2003)

INSTRUMENTATION: DETECTORS

- First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Preliminary Maps and Basic Results. C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, L. Page, D. N. Spergel, G. S. Tucker, E. Wollack, E. L. Wright, C. Barnes, M. R. Greason, R. S. Hill, E. Komatsu, M. R. Nolta, N. Odegard, H. V. Peiris, L. Verde, & J. L. Weiland. 148, 1 (2003)
- First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: On-Orbit Radiometer Characterization. N. Jarosik, C. Barnes, C. L. Bennett, M. Halpern, G. Hinshaw, A. Kogut, M. Limon, S. S. Meyer, L. Page, D. N. Spergel, G. S. Tucker, J. L. Weiland, E. Wollack, & E. L. Wright. 148, 29 (2003)
- First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Data Processing Methods and Systematic Errors Limits. G. Hinshaw. C. Barnes, C. L. Bennett, M. R. Greason, M. Halpern, R. S. Hill, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, N. Odegard, L. Page, D. N. Spergel, G. S. Tucker, J. L. Weiland, E. Wollack, & E. L. Wright. 148, 63 (2003)

INSTRUMENTATION: MISCELLANEOUS

- First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Beam Profiles and Window Functions. L. Page, C. Barnes, G. Hinshaw, D. N. Spergel, J. L. Weiland, E. Wollack, C. L. Bennett, M. Halpern, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, G. S. Tucker, & E. L. Wright, 148, 39 (2003)
- First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Galactic Signal Contamination from Sidelobe Pickup. C. Barnes, R. S. Hill, G. Hinshaw, L. Page, C. L. Bennett, M. Halpern, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, G. S. Tucker, E. Wollack, & E. L. Wright. 148, 51 (2003)
- BOOMERANG: A Balloon-Borne Millimeter-Wave Telescope and Total Power Receiver for Mapping Anisotropy in the Cosmic Microwave Background. B. P. Crill, P. A. R. Ade, D. R. Artusa, R. S. Bhatia, J. J. Bock, A. Boscaleri, P. Cardoni, S. E. Church, K. Coble, P. deBermardis, G. deTroia, P. Farese, K. M. Ganga, M. Giacometti, C. V. Haynes, E. Hivon, V. V. Hristov, A. Iacoangeli, W. C. Jones, A. E. Lange, L. Martinis, S. Masi, P. V. Mason, P. D. Mauskopf, L. Miglio, T. Montroy, C. B. Netterfield, C. G. Paine, E. Pascale, F. Paicentini, G. Polenta, F. Pongetti, G. Romeo, J. E. Ruhl, F. Scaramuzzi, D. Sforna, & A. D. Turner, 148, 527 (2003)

INSTRUMENTATION: POLARIMETERS

First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Temperature-Polarization Correlation. A. Kogut, D. N. Spergel, C. Barnes, C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, M. Limon, S. S. Meyer, L. Page, G. S. Tucker, E. Wollack, & E. L. Wright, 148, 161 (2003)

ISM: ATOMS

A Neutral Hydrogen Survey of the Large Magellanic Cloud: Aperture Synthesis and Multibeam Data Combined. Sungeun Kim, Lister Stavely-Smith, Michael A. Dopita, Robert J. Sault, Youngung Lee, & You-Hua Chu. 148, 473 (2003)

ISM: KINEMATICS AND DYNAMICS

Interstellar Matter near the Pleiades. VI. Evidence for an Interstellar Three-Body Encounter. Richard E. White. 148, 487 (2003)

ISM: MOLECULES

The Millimeter- and Submillimeter-Wave Spectrum of the Trans-Trans Conformer of Diethyl Ether (C2H5OC2H5). Ivan Medvedev, Manfred Winnewisser, Frank C. De Lucia, Eric Herbst, Ewa Bialkowski – Jaworska, Oleksandr Desyatnyk, Lech Pszczolkowski, Zbigniew Kisiel, Enyi Yi, Lai Peng Leong, & Ryan P. A. Bettens. 148, 593 (2003)

ISM: STRUCTURE

- First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Galactic Signal Contamination from Sidelobe Pickup. C. Barnes, R. S. Hill, G. Hinshaw, L. Page, C. L. Bennett, M. Halpern, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, G. S. Tucker, E. Wollack, & E. L. Wright. 148, 51 (2003)
- First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Foreground Emission. C. L. Bennett, R. S. Hill, G. Hinshaw, M. R. Nolta,

N. Odegard, L. Page, D. N. Spergel, J. L. Weiland, E. L. Wright, M. Halpern, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, G. S. Tucker, & E. Wollack, 148, 97 (2003)

LINE: FORMATION

Electron Collision Excitation Rates for O 1 Using the B-Spline R-Matrix Approach. O. Zatsarinny & S. S. Tayal. 148, 575 (2003)

LINE: IDENTIFICATION

New Identifications of Mn IV and Fe VII Vacuum Ultraviolet Lines. J. O. Ekberg & U. Feldman. 148, 567 (2003)

METHODS: DATA ANALYSIS

- First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Galactic Signal Contamination from Sidelobe Pickup. C. Barnes, R. S. Hill, G. Hinshaw, L. Page, C. L. Bennett, M. Halpern, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, G. S. Tucker, E. Wollack, & E. L. Wright. 148, 51 (2003)
- First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Data Processing Methods and Systematic Errors Limits. G. Hinshaw, C. Barnes, C. L. Bennett, M. R. Greason, M. Halpern, R. S. Hill, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, N. Odegard, L. Page, D. N. Spergel, G. S. Tucker, J. L. Weiland, E. Wollack, & E. L. Wright. 148, 63 (2003)
- First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Parameter Estimation Methodology. L. Verde, H. V. Peiris, D. N. Spergel, M. R. Nolta, C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, L. Page, G. S. Tucker, E. Wollack, & E. L. Wright. 148, 195 (2003)

METHODS: LABORATORY

New Identifications of Mn IV and Fe VII Vacuum Ultraviolet Lines. J. O. Ekberg & U. Feldman. 148, 567 (2003)

Measurements and Calculations of Photoionization Cross Sections of Multiply Charged Ions in Ground and Metastable States along the Isonuclear Series of Oxygen: O²⁺ to O⁴⁺. J.-P. Champeaux, J.-M. Bizau, D. Cubaynes, C. Bluncard, S. Nahar, D. Hitz, J. Bruneau, & F. J. Wuilleumier. 148, 583 (2003)

The Millimeter- and Submillimeter-Wave Spectrum of the Trans-Trans Conformer of Diethyl Ether (C2H3OC2H3). Ivan Medvedev, Manfred Winnewisser, Frank C. De Lucia, Eric Herbst, Ewa Bialkowski – Jaworska, Oleksandr Desyatnyk, Lech Pszczolkowski, Zbigniew Kisiel, Enyi Yi, Lai Peng Leong, & Ryan P. A. Bettens. 148, 593 (2003)

METHODS: STATISTICAL

- First-Year Wilkinson Microwave Anisotrophy Probe (WMAP) Observations: Parameter Estimation Methodology. L. Verde, H. V. Peiris, D. N. Spergel, M. R. Nolta, C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, L. Page, G. S. Tucker, E. Wollack, & E. L. Wright. 148, 195 (2003)
- Three-dimensional Statistics of Radio Polarimetry. Mark M. McKinnon. 148, 519 (2003)

MOLECULAR DATA

The Millimeter- and Submillimeter-Wave Spectrum of the Trans-Trans Conformer of Diethyl Ether (C2H5OC2H5). Ivan Medvedev, Manfred Winnewisser, Frank C. De Lucia, Eric Herbst, Ewa Bialkowski–Jaworska, Oleksandr Desyatnyk, Lech Pszczolkowski, Zbigniew Kisiel, Enyi Yi, Lai Peng Leong, & Ryan P. A. Bettens. 148, 593 (2003)

New Theoretical Line List for the B' ²Σ⁺ ← X ²Σ⁺ System of ²⁴MgH. S. Skory, P. F. Weck, P. C. Stancil, & K. Kirby. 148, 599 (2003)

PLANETS AND SATELLITES: INDIVIDUAL

Jupiter

First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Beam Profiles and Window Functions. L. Page, C. Barnes, G. Hinshaw, D. N. Spergel, J. L. Weiland, E. Wollack, C. L. Bennett, M. Halpern, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, G. S. Tucker, & E. L. Wright. 148, 39 (2003)

POLARIZATION

Three-dimensional Statistics of Radio Polarimetry. Mark M. McKinnon. 148, 519 (2003)

RADIO CONTINUUM: GENERAL

First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: On-Orbit Radiometer Characterization. N. Jarosik, C. Barnes, C. L. Bennett, M. Halpern, G. Hinshaw, A. Kogut, M. Limon, S. S. Meyer, L. Page, D. N. Spergel, G. S. Tucker, J. L. Weiland, E. Wollack, & E. L. Wright, 148, 29 (2003) Three-dimensional Statistics of Radio Polarimetry. Mark M. McKinnon. 148, 519 (2003)

RADIO LINES: GALAXIES

A Neutral Hydrogen Survey of the Large Magellanic Cloud: Aperture Synthesis and Multibeam Data Combined. Sungeum Kim, Lister Stavely-Smith, Michael A. Dopita, Robert J. Sault, Youngung Lee, & You-Hua Chu. 148, 473 (2003)

RADIO LINES: ISM

The Millimeter- and Submillimeter-Wave Spectrum of the Trans-Trans Conformer of Diethyl Ether (C₂H₅OC₂H₅). Ivan Medvedev, Manfred Winnewisser, Frank C. De Lucia, Eric Herbst, Ewa Bialkowski—Jaworska, Oleksandr Desyatnyk, Lech Pszczolkowski, Zbigniew Kisiel, Enyi Yi, Lui Peng Leong, & Ryan P. A. Bettens. 148, 593 (2003)

SPACE VEHICLES: INSTRUMENTS

First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Preliminary Maps and Basic Results. C. L. Bennett, M. Halpern, G. Hinshaw, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, L. Page, D. N. Spergel, G. S. Tucker, E. Wollack, E. L. Wright, C. Barnes, M. R. Greason, R. S. Hill, E. Komatsu, M. R. Nolta, N. Odegard, H. V. Peiris, L. Verde, & J. L. Weiland. 148, 1 (2003)

First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: On-Orbit Radiometer Characterization. N. Janosik, C. Barnes, C. L. Bennett, M. Halpern, G. Hinshaw, A. Kogut, M. Limon, S. S. Meyer, L. Page, D. N. Spergel, G. S. Tucker, J. L. Weiland, E. Wollack, & E. L.

Wright. 148, 29 (2003)

First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Data Processing Methods and Systematic Errors Limits. G. Hinshaw, C. Barnes, C. L. Bennett, M. R. Greason, M. Halpern, R. S. Hill, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, N. Odegard, L. Page, D. N. Spergel, G. S. Tucker, J. L. Weiland, E. Wollack, & E. L. Wright. 148, 63 (2003)

First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: The Angular Power Spectrum. G. Hinshaw, D. N. Spergel, L. Verde, R. S. Hill, S. S. Meyer, C. Barnes, C. L. Bennett, M. Halpern, N. Jarosik, A. Kogut, E. Komatsu, M. Limon, L. Page, G. S. Tucker, J. L. Weiland, E. Wollack, & E. L. Wright. 148, 135 (2003)

STARS: ABUNDANCES

Improved Laboratory Transition Probabilities for Nd II and Application to the Neodymium Abundances of the Sun and Three Metal-Poor Stars. E. A. Den Hartog, J. E. Lawler, C. Sneden, & J. J. Cowan. 148, 543 (2003)

STARS: ATMOSPHERES

New Theoretical Line List for the B' ²Σ⁺ ← X ²Σ⁺ System of ²⁴MgH. S. Skory, P. F. Weck, P. C. Stancil, & K. Kirby. 148, 599 (2003)

STARS: LATE-TYPE

New Theoretical Line List for the B' ²∑⁺ ← X ²∑⁺ System of ²⁴MgH.
S. Skory, P. F. Weck, P. C. Stancil, & K. Kirby. 148, 599 (2003)

STARS: PULSARS: GENERAL

Three-dimensional Statistics of Radio Polarimetry. Mark M. McKinnon. 148, 519 (2003)

SUN: ABUNDANCES

Improved Laboratory Transition Probabilities for Nd II and Application to the Neodymium Abundances of the Sun and Three Metal-Poor Stars. E. A. Den Hartog, J. E. Lawler, C. Sneden, & J. J. Cowan. 148, 543 (2003)

SUN: UV RADIATION

New Identifications of Mn IV and Fe VII Vacuum Ultraviolet Lines. J. O. Ekberg & U. Feldman. 148, 567 (2003)

SURVEYS

Optical Identification of the ASCA Medium Sensitivity Survey in the Northern Sky: Nature of Hard X-Ray-Selected Luminous Active Galactic Nuclei. Masayuki Akiyama, Yoshihiro Ueda, Kouji Ohta, Tadayuki Takahashi, & Toru Yamada. 148, 275 (2003)

A Hubble Space Telescope Survey of Extended [O III λ5007 Emission in a Far-Infrared Selected Sample of Seyfert Galaxies: Observations. H. R. Schmitt, J. L. Donley, R. R. J. Antonucci, J. B. Hutchings, & A. L. Kinney. 148, 327 (2003)

TELESCOPES

First-Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Beam Profiles and Window Functions. L. Page, C. Barnes, G. Hinshaw, D. N. Spergel, J. L. Weiland, E. Wollack, C. L. Bennett, M. Halpern, N. Jarosik, A. Kogut, M. Limon, S. S. Meyer, G. S. Tucker, & E. L. Wright. 148, 39 (2003)

ULTRAVIOLET: GENERAL

New Identifications of Mn IV and Fe VII Vacuum Ultraviolet Lines. J. O. Ekberg & U. Feldman. 148, 567 (2003)

X-RAYS: DIFFUSE BACKGROUND

Optical Identification of the ASCA Medium Sensitivity Survey in the Northern Sky: Nature of Hard X-Ray-Selected Luminous Active Galactic Nuclei. Masayuki Akiyama, Yoshihiro Ueda. Kouji Ohta, Tadayuki Takahashi. & Toru Yamada. 148, 275 (2003)